

SUBTERRANEA BRITANNICA

SECRETARY'S NEWSLETTER NO 16

1996

WELCOME TO,

Richard Lamont, Staffordshire
David McGillivray, London
Mervyn Sellick, Bedfordshire
Denise Burton, Surrey

Sam Dawson, London
M.U.L. Williams, London
John Mann, Oxfordshire
Jim Gane, Reading

Obituary

Ellis Hillman, co-author of *London under London*, subterranean London enthusiast and twice a speaker at Sub. Brit. conferences died of a heart attack, aged 67 on January 20th.

Ellis was never a member of Sub. Brit. but in view of his massive public service commitments this is not surprising. His political career started in 1958 and continued until his death, at which time he was Labour councillor for Colindale. He served on numerous committees in London concerned with education, sport, science, art and the environment. He was Barnet's first Labour mayor and until his recent retirement was lecturer in environmental studies at the University of East London.

He was a likable and respected politician of the old school - an interesting person of integrity and mildly eccentric. Thus he founded and elected himself president of the Lewis Carroll Society. He was also connected with the Flat Earth Society but the story goes that the sole member of this society appointed him to president without his knowledge or permission. Nevertheless Ellis seems to have been proud of this title - a strange fate for a former student of geology.

Someone to be remembered with affection for a long time.

The Bulletin: a note from the editor

Until some years ago, we published two slender Bulletins each year. More recently we have issued a more substantial compilation annually. Members will no doubt have noted that Bulletin 31, which should have been in their hands by now, has yet to appear. It is on its way! And it is hoped that Bulletins 31 and 32 will be circulated to members during 1996.

I have volunteered to take on the task of editor, on a long-term basis, and commenced work on a mass of accumulated material late last year. Work is now well in hand in connection with a number of these papers, and I am at various stages of checking assorted editorial points or

questions of content or style with the authors.

At the same time, I have decided to review the recently issued 'new-style' Bulletins, to assist with planning future issues. Approximately 50% of the papers in recent issues have been concerned with foreign sites. Although we are justifiably proud of our strong links with our colleagues in several other European countries, I intend to ensure that somewhat more British material is published in future - after all, we are hardly short of sites or of researchers! I also considered the subject-matter, and have noted that two particular classes of underground site have been relatively neglected in our Bulletins in recent years - 'miscellaneous' mines, and canal, railway, and road tunnels. I shall be seeking material, especially, with this in mind. Becoming editor may, of course, result in my writing more papers myself (there is more than sufficient source material in my files!) But I certainly have no wish to write the whole Bulletin, so will in due course be approaching potential authors.

The Newsletter.

Interesting articles of all sorts are required for the newsletter. Unlike the Bulletin there are no very strict editorial requirements. Articles not suitable for the Bulletin may be passed to the newsletter.

Members have sent me many interesting news cuttings and may be disappointed not to find them included in this present newsletter. However they will see them in newsletter 17 which is even now under production.

There are usually two newsletters per year but this year there are likely to be more.

The Study Weekend 1996

At the time of going to press there were 27 bookings for the Study Weekend. This means there are 3 vacancies and perhaps more if you speak to Jonathan Maisey nicely

WWII Naval communications HQ at South Heighton (pronounced Hayton) near Newhaven, East Sussex. A talk by Geoff Ellis at Eastbourne on March 1996

At South Hayton on the Newhaven to Lewis (A26) road there is a grassy bank on the east side. At the foot of this bank, at road level, is a partially buried pill-box. This was once part of the Naval communications HQ constructed underground during WWII. Locals remember a WC standing on this pill-box during the war.

Geoff remembers, as a school boy, this then secret underground structure being excavated. Chalk was removed from an entrance a few feet higher up the bank. (This entrance can still be found but because of persistent vandalism it is now securely bricked up. Also the steps which once led up the bank have been destroyed.) The excavated chalk was carted from the entrance in trucks on a railway line to dumper trucks before being conveyed to a chalk pit. By this means the excavation was concealed from enemy air reconnaissance.

The purpose of the installation, which was a system of tunnels, was to establish a Naval Sub. Command HQ under the control of Portsmouth. It was a Naval Operations Intelligence Centre called HMS Forward. From Hastings to Bognor 10 Radar stations would report sightings over the English Channel which would then be plotted. (The same information would also be recorded at Portsmouth and Dover. Included in the installation were a WT office, offices for cyphering and deciphering, a signals distributions office, and 8 teleprinters. In addition the army and GPO each had a teleprinter. The army could thus target artillery to sightings of the enemy in the Channel. Electricity from the mains was used but there was also a stand-by generator. The necessary aerial (10 m dipole) on the surface survived the war and is now in Geoff's garden. It is likely that transmitters were included in the installation but it was the general practice for transmission aerials to be sited away from transmitters and connected by landlines. GPO landlines may have been enlisted. Communications with Dover and Portsmouth would have been by pulsed tones down GPO lines. Internal communications within the installation were by a pneumatic tube system.

At the surface:

The area on top of the bank was occupied by a holiday home built by the Guinness Trust shortly the war but requisitioned by the Royal Navy before it was put to peacetime use. The wartime entrance to the installation was from a room in the Guinness Trust building. This room still stands but is soon to be demolished, although the top of the stairway down will be specially capped and the stairs preserved. It was these stairs which Geoff Ellis descended to enter and survey the installation.

Defence of the site:

The enemy never knew about the site, but had they attacked they would have found it defended by four pill-boxes at the top of the bank, which at one time were defended by the Home Guard. The four pill-boxes could only be entered from below within the installation. One of them was effectively disguised as a chicken house complete with chickens.

Internally the defences included 5/8 inch steel doors, bends in the tunnels, a machine gun nest for the protection of the stairs, and a pit which acted as a grenade trap should grenades be rolled down the stairs. Doors had rubber seals against gas attacks.

Inside the tunnels:

At the heart of the installation were two parallel tunnels linked by five shorter tunnels. The tunnels (in chalk) were lined with corrugated galvanised metal supported on a steel frame. This was a system commonly used in mining and similar WWII installations. Battens were wired to the frame and plywood nailed to this. Felt was also included. After the war the site was pillaged for the hardwood battens.

The system contains about 500 million litres of air and the ventilation trunking is very evident. Air was moved by fans and re-cycled. Two large water tanks may have provided water for scrubbing the air in the event of a gas attack. A large electric heater allowed the air to be warmed. As the system was under positive pressure the doors were equipped with pressure relief valves.

Tubes for coaxial cables led to the surface.

Lighting was by fluorescent tube which had not long been invented.

In one part of the system a pit had been dug in the floor to accommodate the telephone exchange system which needed tall racks.

There was provision for limited sleeping accommodation but apart from boiling water none for cooking.

There was no drainage and waste from sinks was collected in sumps and bailed. There were only 4 toilets (Elsans) and two were outside the main operational area. Under attack there would have been two toilets for a possible 100 people.

Further Information:

The system was designed by Col. Foster after visiting Monty's Hideout in Reigate. It was dug by Welsh Miners under Canadian command.

After WWII WRVS took the Trust House over as an old peoples home and there is a granite panel in the house commemorating its wartime work.

Book review and precis.

Oak Island Secrets. Mark Finnan. Formac Publishing Company, Halifax, Nova Scotia, Canada, 1995

Oak Island is a tiny island in Mahone Bay Nova Scotia, which faces the Atlantic Ocean. In 1795 Daniel McGinnis, a local settler, walked this uninhabited and rarely visited island and noticed a circular depression in a woodland clearing. He summoned up a few friends and started digging. They discovered a shaft filled in an odd way but were unable to reach the bottom. This started a craze for digging for treasure on the island which is still in force to this day. Although no treasure has been found the search has revealed strange underground features which are worthy of serious consideration.

Mark Finnan is a writer and actor and if you can get hold of a copy you will most likely find this book to be intriguing and fascinating. But beware if you are one of those people who are disturbed, embarrassed or feel insecure while reading of treasure hunting, mysticism, dream interpretation etc. However for most of us this book is composed in such a way that it is easy to sort the sober historic information from the interesting wild speculations which we will enjoy scoffing at. Also avoid the book if you are an angry archaeologist - what has happened on the island will appal you.

Returning to the story; McGinnis and his fellow diggers found the shaft was seven feet wide and covered with flat stones foreign to the island. After digging 10 feet through loose soil the encountered a platform of logs, 6-8 inches in diameter fitted into the clay walls of the shaft. These logs were presumed to have come from the trees cut down to form the clearing in the woods. Below the logs was a gap of 2 feet and more loose earth. Further digging for 10 feet revealed another log platform but the diggers were too exhausted to dig further and the project was abandoned for 9 years.

In 1804 McGinnis and his fellow diggers returned but as members of a treasure hunting syndicate. The other members of the syndicate are described as 'men of fairly conservative dispositions; some were public figures and members of the Masonic Order'. They dug to 90 feet but there was a platform of logs almost every 10 feet. They also noted a layer of charcoal at 30 feet, a layer of blue clay at 40 feet, beach stones with strange figures and letters at 50 feet, manila grass and hemp or coconut fibre at 60 feet and a slab of Swedish Granite with strange markings at 90 feet. Unfortunately after removing the logs at 90 feet the pit flooded to 30 feet of the surface overnight.

An attempt to pump the pit later in the year failed but in 1805 a new approach was tried. This plan was to sink a new shaft adjacent to the original shaft and tunnel towards it. Accordingly a new shaft was sunk to 100 feet and tunnelling started to what was believed to be a treasure pit at the bottom of the original shaft. But water burst in and the new shaft flooded to the depth of the original shaft.

Forty years elapsed during which time the two shafts were re-filled but in 1845 a group of business men decided on another attempt to recover the treasure which was still believed to be there. They formed the Truro Company which in 1849 re-excavated the original shaft to 90 feet

with no initial trouble with water. Nevertheless it flooded suddenly when their backs were turned. Drilling was then tried under water. The drill pieced the log floor, dropped 1 foot and drilled through 1 foot of oak followed by 22 inches of metal pieces. It than pieced 8 inches of oak 22 inches of metal pieces, 4 inches of oak, 6 inches of spruce and finally clay. It was deduced that the drill had bored through two oak treasure chests. 3 links resembling links of an ancient gold chain were brought to the surface on the auger.

No more work was performed until 1850 when a third shaft was sunk to repeat the 1805 plan - to approach the treasure laterally through an horizontal tunnel dug from a new shaft sunk adjacent to the original treasure shaft. Exactly the same result occurred - the new shaft and tunnel filled with water at the last moment. But rather late in the day it was noticed that the flood water was salty and its level rose and fell with the tide. The treasure shaft was somehow connected with the sea. Investigation of the shore seemed to prove this. A concealed system of 5 stone-lined conduits connected to a single conduit passing 500 feet inland and hit the treasure pit 110 feet down. Considerable effort must have been expended in constructing this system, which would have delivered sea water to the bottom of the treasure pit, since a coffer dam would have had to have been constructed along the shore to hold back the sea at high tide.

A theory was proposed that whoever buried the treasure had rigged a water trap. The series of log platforms and soil in-fillings made an air-tight plug in the shaft causing trapped air to hold back the sea water. When the plug was removed the water would rise and submerge the treasure.

An attempt by the treasure hunters to build a coffer dam on the shoreline at low tide to prevent the sea water entering the system of conduits carrying the sea water to the treasure pit failed. An attempt to block the main sea water conduit after sinking a shaft to intercept it seemed to have succeeded but the shaft still flooded. It could not be pumped dry. Yet another shaft was sunk to 118 feet next to the original pit. Tunnelling from this to beneath the treasure pit caused the bottom of it to collapse and any treasure disappeared in a flood of mud and water. It was believed that the treasure was swept into the tunnel which connected the treasure pit with the 1805 shaft.

The Truro company gave up but others tried to pump the original shaft in 1859. In 1861 a steam pump was tried but a man was killed when the boiler burst.

In 1863 the 'Oak Island Association' which had Masonic connections was formed. Sixty-three men were involved in an attempt to pump the original and other shafts - it ended in failure. Two shafts were then sunk to intercept the water tunnel but this also failed. An attempt to block the water conduits at the beach end failed. In a last attempt yet another shaft (the ninth) was sunk to 120 feet. From this tunnels were dug in various directions, one meeting the original pit at the 100 foot level just below the former resting point of the treasure chests. After this the Oak Island Association gave up.

Next the Oak Island Eldorado Company (also called the

Halifax Company) was formed and once again attempted to isolate the treasure pit from the sea by constructing a coffer dam near the shore. This also failed to hold back the sea. However they sunk the 10th shaft and drove a series of horizontal tunnels from 110 feet down towards the treasure pit and the sea water flood tunnel. They confirmed the existence of the flood tunnel beyond doubt. Later another vertical shaft was located on the surface between the treasure shaft and the shore. It was 6 feet wide and 52 feet deep. By now there was also evidence that there was a water filled cavern beneath the original treasure pit and this was now believed to be the place to which the treasure had sunk.

The Oak Island Eldorado Company gave up in 1867.

In 1894 Frederick Blair began operations. He blew up the flood tunnel but this failed to prevent the flow of sea water. The beach was then blown up and the treasure pit pumped to 100 feet. From this level the pit was drilled to a total depth of 188 feet. Below 120 feet wood was struck several times. At 153 feet, first a cement-like material, then wood and finally pieces of metal were drilled through. The workers assumed they had discovered a cement vault at least seven feet high and with walls seven inches thick in which was a wooden container with walls 5 inches thick. Fragments of parchment with indecipherable writing on them were brought to the surface.

On the way down water gushed into Blair's shaft at 126 feet. Dyes proved that this was another conduit bringing sea water to the treasure pit. Six shafts were dug but failed to locate this conduit.

Next the treasure pit was enlarged to a depth of 113 feet at which depth water burst in from two channels which could not be blocked off. Yet another project ran out of money and closed down.

Henry Bowdoin pumped the treasure pit to 113 feet in 1909. From here he drilled lower but the 'cement' he hit at 150 feet proved to be limestone. Despite drilling to 167 feet he found nothing but clay and stone. He was later to debunk the whole story of treasure and water tunnels.

William Chappell opened the shaft to 160 feet in 1931. Further drilling found a cement-like material with a space underneath. But this project was aborted.

In 1937 Gilbert Hedden sank a 12 by 24 foot shaft (the 22nd dug and the largest yet) and penetrated a flood conduit at 93 feet. Drilling located oak at 160 feet but financial problems forced him to withdraw.

Edwin Hamilton (also a Freemason) spent from 1938-1943 looking for the treasure and established the presence of man-made tunnels in the bedrock at 200 feet.

In 1955 George Greene extensively drilled the area and apparently found a cavern below the 110 foot level. It might have been a natural cavern in limestone.

An attempt by Robert Restall in 1965 ended in the death of he and six others at the bottom of the shaft they had sunk. They were overcome with gas.

Late in 1965 Robert Dunfield attacked the area with heavy machinery after building a causeway to the island. He dug a crater 50 feet wide and 150 feet deep but found nothing. Further drilling indicated a cavity at 45 feet and a 45 foot high chamber with iron at the bottom. Dunfield

too then ran out of money but not before he had destroyed the original stone lined conduits.

In 1967 Tobias and Blenkinsop tried to locate the second sea water flood tunnel by sinking another shaft (the 28th) but failed because this shaft collapsed but they hired the Becker Drilling Company for a programme of deep drilling. This established the presence of previously undiscovered tunnels at 200 feet. They drilled through an extensive layer of solid limestone and gypsum and then met wood, blue clay and a space of up to 10 feet. Radiocarbon data on pieces of the wood indicated a date of no earlier than the 16th century. Pieces of cement, china and metal were also brought to the surface.

Yet another coffer dam was tried but, as before, it fell to the power of the sea.

In 1970 Blenkinsop drilled a hole which was to become known as Borehole 10X, north-east of the original pit. It hit several four foot cavities before meeting bedrock at 180 feet. At 230 feet a large cavity was discovered and metal found to be 200 year old steel was brought to the surface. The bedrock was described as anhydrite. The shaft, which was water-filled, was widened from six inches to 27 inches and underwater TV cameras lowered to the cavity. It is claimed that parts of a human body and treasure chests could be seen. Divers, including Blenkinsop himself, then descended but disturbance of the anhydrite made the water opaque and nothing else was seen.

In 1973 Blenkinsop drilled several other holes one to 660 feet and discovered a piece of wire and a metal plate. Ingress of fresh water prevented further exploration.

In 1976 attempts were made to pump Borehole 10 X with powerful pumps but the borehole collapsed.

In 1978 attempts were made to strengthen Borehole 10X but the syndicate financing the project withdrew and the project was abandoned before completion.

In 1995 computer enhancement of Blenkinsop's videotape seemed to confirm that the cavity he had filmed had entrances to two tunnels, showed tools, wooden shoring, possibly a body and possibly two treasure chests under sediment.

The pertinent question is why has all this effort been made by apparently sober businessmen, at great expense, to search for a treasure which has a questionable existence? Did and do the treasure hunters know something outsiders don't know? Mark Finnan believes that the answer lies with the Freemasons who could have secret information. The treasure hunting projects are associated with the Masonic Order.

Freemasonry which is associated with secret signs and signals started in 1599 when skilled medieval stone masons established a spiritual order based on mystical Christianity which had been introduced into Europe partly by the Knights Templar. By the early 17th century Freemasonry had become associated with the Rosicrucian Enlightenment. This movement was supported by influential philosophers, scientists, writers and artists. Among those connected with the movement was Sir Francis Bacon (1561-1626) possibly the illegitimate son of Queen Elizabeth I. Bacon is best known as the Father of Science but he wanted to found a perfect idyllic state. This was not

surprising in view of the horrible social conditions in Elizabethan England. Bacon took a great interest in the North American colonies. But Bacon is also believed to be the true author of Shakespeare's plays. Bacon's life was controlled by agents of the Queen who misrepresented herself as The *Virgin Queen*. Despite keeping her son secret she saw to it that he had a very advantageous position in life and it would have been unthinkable of him to have been seen to have indulged in anything as vulgar as play writing. Hence he colluded with an actor William Shakespeare to falsify authorship of the plays and sonnets. The original manuscripts of the plays have never been found.

Shakespeare's plays and sonnets contain coded messages which reveal the true identity of the author. Sonnet 52 deciphered includes the message, 'The treasure is on an island in Mahone Bay'.

Thus it is concluded that Bacon in collaboration with the eminent mining engineer Thomas Bushall organised the burial of treasure together with the original Shakespearean manuscripts on Oak Island.

This is roughly the story rather eloquently put out by Mark Finnan; you may not believe it but it makes intriguing reading.

Book review.

Underground bases and tunnels. What is the government trying to hide. Richard Sauder. Paperback, 142 pages with 50 pages of illustrations. Available from Quest Publications International Ltd, 1st Floor, 66 Boroughgate, Otley, Yorks., LS21 1AE. Order code XX5J, price £11.99 post-paid.

This fascinating American book has now been imported to the UK and it was worth the wait. The blurb says 'There are more underground bases than you think and there's more going on than just planning to keep the President alive in a nuclear war. Working from public documents and corporate records, this book digs below the surface of the government's super-secret underground'.

So yes, there are plenty of surprises in this book but no fabulous revelations - in a way I'm glad because I get highly suspicious of books that make wild claims about new secrets unearthed. In many ways this book is the US counterpart of Peter Laurie's 'Beneath The City Streets'; in other words it's a calm, sane and well-researched book discussing military and industrial underground sites in the USA, together with the techniques for constructing them. There's a tacked-on chapter on cattle mutilations which seems out of place.

Only one mention is made of underground facilities in the UK, relating to Sopley.

In brief, a fascinating read at a not outrageous price.

Andrew Emmerson

Going underground. Jennifer Toth tells Lena Corner about her book on New York's city beneath the city

Deep in the bowels of the Earth, below the bustle of New York, lies a vast under-ground network of tunnels. Subway lines, sewage systems and gas pipelines form the invisible arteries of the city. In these dark, rat-infested, disease ridden intestines live the so called 'Mole People', the city's homeless who choose to dice with death on the subway's live rail tracks rather than face continual abuse on the streets. By the late Eighties, around 6,000 people had made this dank labyrinth their home - an underworld with a law unto itself. Everyone, from the Government to the homeless agencies, kept quiet about it. But when 24 year-old Jennifer Toth found out about the Mole People, she felt compelled to expose their plight. "The life expectancy of people in the tunnels is about four years," she says. "If it's not a common cold that gets them, they'll be hit by a train or the violence of life down there. Many of them are sick and dying because they were being ignored, so I had to write something." Led below by an assortment of guides ranging from transit police to graffiti artists and the 'mayor' of a complex tunnel community, Jennifer spent eight months scouring the city beneath the city. The result is *The Mole People*, a series of testimonies from its inhabitants. She uncovered support networks where food was shared and scant belongings protected. Women even gave birth on the side of the subway tracks. But the deeper she dug - and the tunnels stretch 18 storeys beneath the surface - the more horrific her findings became. Murder, even cannibalism, flourished in the city's heart of darkness. "Just the shortest walk down there alone felt like forever because there was no immediate exit or quick way out," she says. "It was terrifying, but I had to learn ways of making myself disappear into the surroundings." Since writing the book, many of its characters have abandoned the tunnels. Most have died but others have coaxed into the outside world. As for Jennifer, the project took its toll. Now living in serene North Carolina she still has nightmares about the hell she uncovered. "If I had to go down and do it all again, I wouldn't," she says emphatically. "I got caught up in two worlds. It was a terrifying, draining experience."

The Mole People by Jennifer Toth (Chicago Review Press, £9.99).

This review was taken, with permission from, *The Big Issue*, No. 171. March 4-10, 1996

Obituary.

Raymond Mauny [Professor of Letters, Sorbonne University, Paris]

It is probably a significant time for me to write this form of obituary for Prof. Raymond Mauny as of course, September 1995 was the 21st Birthday of Subterranea Britannica. Although I knew Raymond was suffering from Alzheimer's disease it was not until Alan and I visited his home in the summer of 1993 that Madame Mauny told us that he had been in hospital for the previous eighteen months and did not recognise anyone. Unfortunately, I was not informed of his actual death in March, 1994.

I first met Raymond in 1972 when Alan and I went to Chinon, his home town, to see the attributed Knights Templar panel in the dungeon of the Tour du Coudray. He thought the writer of the letter had been Alan and was most surprised when he realised it was I who was the one doing the historical research work on Royston Cave. Before that I had been the one trailing behind as he strode purposefully ahead with Alan explaining all the important features of Chinon.

From then onwards we corresponded regularly until his memory began to fail him. He became one of my three mentors prior to my gaining a Mature State Scholarship to Cambridge University. He told me, "You work hard, I help you. Use my name whenever you want to." He also gave me a letter of introduction and reference. In the meantime, he suggested that I try and start a souterrain society for Britain. At that time, he was the President of the Society Francaise d Etude des Souterrains. I wrote off to Cambridge colleges and around the country trying to find people who might be interested in such a Society. Dr. Raymond Smail, a medievalist, responded from Sidney Sussex [to become my second mentor], and Dr. Luscombe, Churchill College, Cambridge University. Both of whom came to visit Royston Cave.

What was the society to be called for Britain: The Society for the Study of Souterrains in Britain, The Souterrain Society for Britain? But the trouble was, rarely did anyone know what a souterrain was, and not only that; the word souterrain in our country relates specifically to Iron Age structures in Cornwall or attached to Brochs in Scotland! It was Raymond who finally suggested the Latinised form and the name Subterranea Britannica was born, and could cover all aspects of underground man-made sites including mines. "And Sylvia, SB are your initials", he followed up with. There was also a link with the French society, the first in our field, because Subterranea was the title of their journal.

Raymond Smail said if I managed to get enough people together to start a society he would chair a meeting for me. It happened, and the preliminary meeting was held in September 1974, in Emmanuel College, Cambridge with a handful of people.

Meanwhile Raymond Mauny gave me the name of Adey Horton, medievalist, a British man living in Troo, near Montoire in France who spent some months each year in

England. Adey invited me to meet him at his home in London. After chatting about the proposed new Society, he disappeared for a moment and came back waving a cheque, "I wish to become the first member of Subterranea Britannica", that was confidence for me, and he became my third mentor.

Raymond Mauny was not just a friend but a superb teacher. I was the apt student thirsting for knowledge. Whenever we were together, he would show me how to, keep records, catalogue books: go out of his way to show me special features underground, "Hold your torch like this, keep it at an angle, make comparisons, keep your eyes open always. Talk to local people and learn what they have to say."

Raymond was my last mentor to die, I owe him a so much, but then so does Subterranea Britannica.

Sylvia P. Beamon Feb 1996

Under Earls Court

I don't know if being inside a swimming pool is 'underground'. As this was dry it certainly wasn't underwater, and as the roof was the floor, and the District Line was rumbling away beside us - underground it must have been!

This was a visit, arranged by the Newcomen Society, to the pool at Earls Court - that is, the pool where they put the boats for the Boat Show. It was built in 1937 and Newcomen members were there to drool over the original machinery, still in place although not all still used. So original is everything that we even saw the speaking tube system still with its first Ever Ready battery in place!

The engineer in charge told us how most of the public assume that the pool is just brought in, and filled, for individual shows. Few people have any idea of the complicated, old system beneath their feet. Basically it is a Olympic size swimming pool with a false floor. Between this floor and the bottom of the pool is an, often flooded, area, which the public never see. We were taken down there during a period when (happily) the pool had been drained.

You go inside a concrete lined, lead chamber - 195 by 95 feet. It is stepped at one end (part of the original mechanism, now not used, tilts the floor above to make a deep end). The floor/ceiling is raised and lowered by six giant rams and the weight supported by a system of stilts - you walk about in a whole forest of these. Water enters and leaves from grilles in the floor and wall. It takes many hours to lower the floor and fill the pool with water, a scary experience, we were told for the last man out! These days it is not used for swimming (except for stunts) and normally filled only for the Boat Show and the Ideal Home. Emptying it has to be as careful as the filling - we were told how when first emptied, in 1937, all the water was let out at once, which flooded Warwick Road!

(Please contact me if anyone would like copies of the detailed material given to us during the visit. Mary Mills 0181 858 9482)

Mary Mills

BRISTOL INDUSTRIAL ARCHAEOLOGICAL SOCIETY

The BIAS BRUNEL Prize

1. The Society has devoted the income from the money which was passed to BIAS from the former Brunel Society to the establishment of a prize, known as the BIAS Brunel Prize, to encourage archaeological and other research into, and the publication of work on, the industrial archaeology of the Bristol region.

2. The revenue will be subsidised, if necessary, from the capital sum so that an amount of £150 will be made available every two years, to be awarded for the first time in 1997.

3. Competition is open to BIAS members and to other persons or groups with an interest in the industrial archaeology of the Bristol region.

4. Entries should consist of a written report or record which should:

Conform to the guidance notes for BIAS Journal, and should not have been published elsewhere? either privately or otherwise, in whole or in part.

Reflect original research into and/or recording of IA sites in the region, with source references.

Be submitted by 31 August in the year preceding that in which the prize is offered (i.e. August 1996 for the first time) and will be considered for publication in BIAS Journal.

5. A panel consisting of the Society's President, Chairman and Journal Editor together with up to two co-opted members, one of whom should if possible be from outside the Society, would decide on awards. The decision of the panel, who reserve the right to vary or withhold the award, will be final.

Owen Ward

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Book review

Willesden at war. Volume Two: The Secret Citadels of WW2.

By Ken Valentine. Published by the author at £4.80 + 45p postage and available direct from him at 150 Cairnfield Avenue, London, NW2 7PJ. ISBN 0-9514258-6-2. Paperback, 32 pages, with illustrations and diagrams.

This is a remarkable book. In a remarkably unmelodramatic manner, the author reveals for the first time in print a startling wartime plan to relocate the seat of government from Whitehall to Willesden. A deep underground war room complex ('Paddock') was built underneath the Post Office research station at Dollis Hill, with luxury accommodation nearby commandeered for Winston Churchill and other top brass. The House of Commons was to move to Willesden Technical College, whilst the House of Lords to another nearby school. The text is no flight of fancy; it is backed up by detailed references to official papers. Photographs include official records of Cabinet meetings held at Paddock and some of

the buildings involved. The author also details the false trails and cover-ups used (successfully) after the war which have ensured this 'Now It Can Be Told' story has remained largely secret until now. In 32 pages there is not much room for great detail but there is certainly enough to create an appetite for more. Don't wait, order this book today.'

Andrew Emmerson

Industrial and Underground Sites of Archaeological Importance

Recording, Listing, Scheduling, and Conservation

The United Kingdom is the birthplace of the railways, of geology, and of modern civil engineering. It was of central importance in the industrial revolution. It's extraordinarily varied geology, for such a small group of

islands, has guaranteed a correspondingly diverse range of extractive industries. It's relatively high population density led to the development of public services infrastructures on a grand scale at an early date. British geological, civil engineering, mining, and industrial expertise was exported world-wide (and still is.) And the UK was subject to European industrial espionage from an early date. With the exception of the Channel Islands, the British Isles have not been conquered or occupied by others since 1066, and in that connection have a wealth of defensive and military structures from Napoleonic times and earlier, and especially from the two world wars and the 'cold war' that succeeded them.

To what extent is the historical importance of all this reflected in the national statutory provision for safeguarding archaeologically and historically important sites and structures? Sadly, industrial and underground sites and structures are seriously under-represented both in the Scheduled Ancient Monuments lists, and amongst buildings Listed as of special architectural or historic interest, under statutes from 1882 onwards. Sadly, also, non-statutory listings and recorded details for 'industrial' structures (and definitions of 'industrial' are legion!) seem to lack balance, and display a poor level of appreciation or understanding of underground sites and structures in particular.

Thus we find amongst the statutorily Scheduled Ancient Monuments (SAMs) any number of burial mounds Roman villas, deserted villages, moated sites, earthworks, and fishponds - and a few caves containing human artefacts, a handful of medieval cellars, and a pitifully small assortment of mines, quarries, and tunnels. Considerable confusion results from the two parallel and to an extent overlapping statutory schemes for recognition of sites - scheduling as Ancient Monuments, and Listing of buildings. There are differences of definition, and it has been suggested that Listing cannot be applied to cavities in the ground, as these are not 'built.' Nevertheless, Brunel's Thames Tunnel (currently the subject of some dispute) enjoys the status of 'Listed Building' rather than 'Ancient Monument', presumably on the grounds that the lining brickwork and portals are 'built', and the structure has until recently been in daily use for railway services. The Institution of Civil Engineers established a Panel for Historical Engineering Works (HEWs) as long ago as 1971, and has since then accumulated a mass of information (kept in the ICE Library) on sites and structures chosen for their technical interest, innovation, durability, or visual attraction.' From 1981 onwards they have published regional handbooks (the Civil Engineering Heritage series) as more or less 'popular' guides including brief historical notes and (often) illustrations; all areas of the British Isles are now represented in these four volumes apart from Greater London, Scotland, and Ireland (which are to be published in due course.) Possibly the 'visual attraction' criterion explains the apparent over-representation of bridges in the published volumes (presumably seen as a good advertisement for the civil or structural engineering professions), and corresponding under-representation of mines and tunnels!

Likewise, perhaps true to its origins in civil as distinct from military engineering, the ICE volumes generally ignore such military and defensive works as Dover Castle and the tunnels beneath it, or Dover Western Heights fortifications (although, interestingly, parts of Chatham Dockyard are included in the ICE Southern England volume!) Presumably the ICE's Historical Engineering Works schedules (all recognised sites have been allocated an HEW number, related to the files held in the ICE Library) are intended to be considered by English Heritage with a view to correcting the under-representation of civil engineering works amongst Ancient Monuments, although this is not evident from the published volumes, and entries for sites such as the Croydon, Merstham & Godstone Iron Railway earthworks at Merstham (Surrey), whilst scheduled as Ancient Monument, are not recognised as such in the ICE volume (the earthworks are in fact SAM Surrey 123. and HEW 1387.)

The Association for Industrial Archaeology's IRIS (Index Record for Industrial Sites) initiative was established, and its Handbook published (1993), with a view to local industrial archaeology societies (in England) contributing to the enhancement of English County Sites and Monuments Records, and to the National Monuments Record, for the 'industrial period.' The published guidelines for recording, including an initially impressive list of words applicable to 'industrial' sites, which extends from brothel via cow shed to tank trap, and indeed council flats, altar, tomb and gun emplacement (so there is no worry about restricted scope!), were worked out in consultation, at national level, with the Royal Commission for Historical Monuments (England) (whose Thesaurus of Archaeological Site Types was used as a basis), English Heritage, the National Trust, the British Waterways Board, etc. But not, it seems, with the Institution of Civil Engineers! whose own scheme had by then been in operation for over ten years' Curiously although limekilns are recognised in the IRIS handbook, hydrating plants were completely overlooked!

MPP

From about the early 1990s, English Heritage has been implementing a Monuments Protection Programme, although neither individuals nor organisations subscribing to English Heritage have found it easy to discover very much about it! The MPP was initiated with the primary aim of bringing the schedule of monuments protected under the 1979 Act up to date with current knowledge and understanding.' The under-representation of industrial sites has been acknowledged, although the scope of the MPP extends to all archaeological sites (including revision and possible de-scheduling of established Scheduled Ancient Monuments.) However, it is also necessary to develop strategies for the protection of those parts of the archaeological resource for which scheduling is not appropriate and to improve knowledge and understanding where these are considered inadequate.'

' Industrial remains are poorly recorded in SMRs and are not well understood among archaeologists generally. On

the other hand, they represent an important part of our heritage and are very much under threat.' English Heritage, in implementing the MPP, is commissioning studies of 'each industry', consulting experts, and compiling site visit reports for those sites identified as being the most significant. I have not to date seen any overall plan indicating the way 'industry' is being defined or subdivided; nor any schedule of which industry sectors are to be considered when, or by whom. Each industry sector is being, in the modern style, 'put out to tender', and it seems that a series of reports (Step 1, Step 2, and so forth) will be available for consultation. However, any references to reports published to date have been hard to find, so it is not clear how knowledgeable individuals are to know when comment is needed, or what there is to comment on!

The procedure, for industrial site reports under the MPP, is as follows:

Step 1 Report :

describes the historical development of the industry, and the nature of the remains; this is circulated for comment;

Step 2 Report :

presents data gathered from existing records, and from informed individuals and from field visits;

Step 3 Report :

identifies remains of national importance, and recommends site for scheduling or other protection.

This sequence is intended to lead to 'further consultation' and to appropriate conservation action being taken.

The entire MPP process is intended to be completed by 2008, with about 1,800 proposals and recommendations per annum.

From a variety of sources, it appears that Step 1 Reports have been published for the following industries ...

Alum

Arsenic

Brass

Coal

Copper

Dove farming

Electrical power

Glass Gunpowder

Ice

Iron and steel

Lead

Power

Tin

Water and sewage

Zinc

Additional (non-reporting) steps are ...

Step 4 : English Heritage assesses the Step 3 Report and selects sites;

Step 5 : English Heritage consults outside bodies to confirm that all appropriate sites have been considered;

Step 6 : Protective action is taken.

Step 3 reports on alum and coal have been completed, as has a Step 4 report on lead. A start has been made on a Step 1 report (or reports) on salt and stone.

Initial correspondence with the Lancaster University

Archaeological Unit, which body has been charged with reporting on the 'Stone and lime industry', reveals that its brief is the surface extraction and quarry-based processing of dimension stone, roadstone, aggregate, cement, sand, gravel, alabaster / gypsum, slate, flint, chert, millstone, jet and lime.' Extraordinarily, according to information from the Lancaster Unit, 'The exclusion of underground workings follows the policy on which English Heritage insisted for the mining industries ... The reason is that Scheduling of underground sites in their own right (as opposed to the downward extension of a surface Scheduling) raises a range of technical and legal problems which are taking some time to work through, and were best tackled separately from the issues involved in getting the general industrial archaeology programmes under way.'

The 'Stone and lime industry' brief will also, it seems, deal with the ganister, granite, hearthstone, honestones and serpentine industries, and perhaps celestite, ochres and umbers. Blue john, graphite and witherite are being dealt with separately along with 'minor metals and vein minerals' (also dealt with by Lancaster.) The same Unit is responsible for the Alum industry. Essex County Council / Lion Saltworks are working on the salt industry. Work has not yet started on the clays / bricks / tiles / pottery industries, and there is indecision about which heading is appropriate for the coprolite industry! English Heritage appears not to advertise the availability of either Ancient Monument lists or MPP Reports, although both are available from their London office (the English county lists at £ 2.50 each.)

Defence of Britain

The Defence of Britain project, supported by the Department of National Heritage is coordinated by a consortium of organisations including the Association of County Archaeological Officers, CADW (Welsh Historic Monuments), the Council for British Archaeology, English Heritage, the Fortress Study Group, and others. The project aims to record and interpret surviving 20th century defence and military remains, with a five-year timescale (1995 - 2000.) In its publicity material, the DoB Project is not explicitly linked with the MPP, although presumably it will cover some of the same ground. The Council for British Archaeology has published a useful practical handbook in connection with the project.

Summary

The recording and interpretation and, where possible, conservation of industrial sites in general, and underground archaeological resources in particular, remains something of a muddle and a rather marginalised area. On the face of it, there seems to be little coordination between major governmental and non-governmental national bodies. And it is far from easy for the interested lay individual, who may well have valuable and specific local or general information or expertise, to discover what is already recorded and well understood, and what is not. At the least, and with all faults, it can be said that the various

initiatives reported briefly here do seem to indicate an increased willingness on the part of Government departments, professional bodies, and mainstream archaeologists to recognise the importance of industrial and underground archaeology - even if most of them do still seem to be afraid of the dark!

References

Association for Industrial Archaeology, Index Record for Industrial Sites.

Recording the industrial heritage. A handbook, Association for Industrial Archaeology, 1993

Barbey, M.F, ed., Civil engineering heritage: northern England, Thomas Telford Ltd. for the Institution of Civil Engineers, 1981

English Heritage, County lists of Scheduled Monuments, as at March 1994. English Heritage, 1994

Labruin, E.A., ed., Civil engineering heritage: eastern and central England. Thomas Telford Ltd. for the Institution of Civil Engineers, 1994

Lowry, B., ed., 20th century defences in Britain: an introductory guide. Council for British Archaeology: Practical Handbook 12, 1995

Olivier, A.C.H., The Monuments Protection Programme, English Heritage : Archaeology Review 1993-94, 10 - 11, 1994.

Otter, R.A., ed., Civil engineering heritage: southern England, Thomas Telford Ltd. for the Institution of Civil Engineers, 1994

Pearce, A., Monuments protection scheme, Newsletter Kent Underground Research Group 37, 1 - 2, 1993.

Sivewright, W.J., ed., Civil engineering heritage: 'Wales and western England, Thomas Telford Ltd. for the Institution of Civil Engineers, 1986.

Suddards, R.W., et al., Listed buildings: the law and practice of historic buildings, ancient monuments, and conservation areas, 2nd edn., Sweet & Maxwell, 1988.

Wainwright, G.J., The Monuments Protection Programme, English Heritage: Archaeology Review 1991-92, 31 - 32, 1992.

Wainwright, G.J., The Monuments Protection Programme, English Heritage: Archaeology Review 1992-93, 25 - 31, 1993.

Paul W. Sowan 30 October 1995

Book review

Underground religion, cult and culture in prehistoric Italy

This work describes over 30 underground sites in peninsular Italy and in Sicily. Some are natural caves, some are artificial rock shelters or rock-cut structures, others little more than natural crevices. These, reportedly, were used for burial or cult purposes from the fifth to the third millennium BC. Numerous plans and sections are given, as are illustrations of graffiti or wall-paintings, and 'finds' where present. The second part of the volume discusses ritual themes, structural meaning, social function, historical development, psychological meaning, and the rise of ritualism in prehistoric Europe. There is a very full bibliography (12 pages) of published work.

Ruth D. Whitehouse, *Cult and Culture in Prehistoric Italy*, University of London Accordia Specialist Studies on Italy I: x + 216 pp, 1992, ISBN 1 873415 07 9, £ 26.95

Book review

Ancient mining

This volume, a substantial (over 500 pages) and expensive (£ 75) work is a sequel to the same author's 'Prehistoric Mining and Allied Industries' (Academic Press, 1980.) It covers the period from Prehistory to the final years of the Roman empire in the west, and offers an overview of mining during that period in western Europe, the Middle East, south-west Asia, and north Africa. The earlier work summarised much of what had been published about flint mining in England and mainland Europe, and about very early mining for copper, iron, and tin. The new volume contains much on early Greek and Italian mining, and on similar exploitation in many of the countries bordering the Mediterranean. A chapter on Britain (nearly 140 pages) dealing with lead, copper, tin, iron, gold, zinc, coal, gems, and chalk and lime. The three paragraphs on the last of these materials are far from illuminating.

Encouragingly, an entire chapter is devoted to the relatively neglected topic of 'Ancient Quarrying and Sources of Building Materials in Ancient Times' (34 pages.) This assumes that most quarries (in the strict sense, workings for dimension stone) were openworks; but underground quarrying is mentioned on the Greek island Paros, in the Cyclades.

Essentially a review of others' published works (there are one and a half pages of references to editions of ancient authors, and over 18 pages of modern authors), the text is naturally as variable in reliability as its source materials. Robert Shepherd, *Ancient mining*, Elsevier Applied Science / Institution of Mining and Metallurgy: xv + 494 pp, 1993, ISBN 1 85861 011 7, £ 75.

Book review

Small mines of South Wales.

An excellently produced little hardbound book which

surveys 32 of the somewhat ephemeral small independent coal mines in south Wales. Each mine site is described, and there are clearly reproduced photographs and sketch plans for each, although these relate only to the surface works.

A.J. Booth, *Small mines of South Wales*, Bridlington: Industrial Railway Society: 96pp, 1995. ISBN 0 901096 86 5, £ 12.95.

Book review

The 'Iguanodon mine' at Bernissart, Belgium

Bernissart is a former coal-mining village in southwest Belgium, about 21 km west of Mons (Bergen), and less than 1 km from the French border. In 1878, two miners working at a depth of 322 metres in the shaft of the Sainte-Barbe pit discovered what they at first thought to be a 'tree-trunk filled with gold.' A few days later the mine manager and a local doctor concluded that what had actually been found was a large pyritized fossil bone, and subsequently the zoologist P.J. Van Beneden, in the course of investigating the site of the discovery, recognised some iguanodon teeth. The Royal Museum of Natural History in Brussels was contacted, and during the following three years L. De Pauw assisted by nine miners made what was, effectively, a 'dinosaur mine' leading off from the coal mine shaft. Operations were not helped by an earthquake, falls of ground, and flooding. But eventually the remains of some thirty iguanodons, along with a variety of other fossils, were removed in 600 blocks of rock weighing altogether 130 tonnes. Excavation ceased in 1881. The iguanodons, having been treated to prevent deterioration, were reassembled for display in the museum in Brussels. The Sainte-Barbe coal mine itself closed in 1921.

A recently published booklet gives further details of the finding and recovery of the bones, and of their subsequent display; and examines in some depth the geological interpretation of how Mesozoic sediment and fossil remains came to be encountered at the bottom of a deep hole in Carboniferous strata, including a suggested palaeogeographical reconstruction of the site at the time the animals lived.

Francine Martin and Pierre Bultynck, 1990, *The iguanodons of Bernissart*, Institut Royal des Sciences Naturelles de Belgique [Bruxelles], 51pp, ISBN 90-73242-02-9.

Paul W. Sowan

Book review

Strong as the rock of Gibraltar

This impressive volume is a detailed account of the military history, and especially the fortifications, of what is described as possibly the most strongly fortified place in Europe, if not the world. The period covered in detail is from 1704 to the Second World War. Over 140 fortifications are described in a detailed gazetteer, and there are numerous contemporary maps and plan, and prints, as well as air photographs and interior and exterior views,

some in colour. Engineering drawings and detailed drawing of armaments are also presented. There are some underground views, though not very many, and the reader looking for any really detailed treatment of the underground spaces in the rock will be disappointed. A brief mention of the Second World War 'underground city' on page 153 mentions that this was to hold a garrison of 16,000 men, with food to last them 16 months; a bakery, frozen food store, generating station, hospital, REME shed, telephone exchange, water distillation plant, as well as ammunition magazines were provided. There is a photograph of the underground REME shed.

Quentin Hughes and Athanassios Migos, *Strong as the Rock of Gibraltar*, Gibraltar: Exchange Publications: xii + 404 pp, 1995, [NO ISBN], £ 40.

Book review.

Beneath the church of the Holy Sepulchre, Jerusalem The archaeology and early history of traditional Golgotha

Written in an academic but readable style, this work reviews recent archaeological and historical evidence relating to Golgotha, the partially subterranean building-stone quarries (9th C BC to 1st C AD), the Rock of Calvary, Jesus' tomb, the 'Jerusalem ship' drawing, and the series of buildings erected over the top of this site in the Christian quarter of the Old City. The diagrams, attempting to show in three dimensions the interrelationships of virgin rock, man-made cavities, and constructed masonry, are perhaps less clear than the text.

Shimon Gibson and Joan E. Taylor, *Beneath the Church of the Holy Sepulchre, Jerusalem. The archaeology and early history of traditional Golgotha*, Palestine Exploration Fund Monography Series Major 1: xx + 102 pp, 1994. ISBN 0 903526 53 0.

Book review

Unterweltem: orte im verborgenen / sites of concealment

This is a superb coffee-table book for those interested in man-made underground space. It is a collection of 83 beautifully composed and printed pictures, in a large format, with informative captions and more extended notes in both German and English. The sites portrayed include cellars, an underground car park, nuclear bunkers, an underground railway, sewers and sewage plant, reservoirs, water supply installations, a pumped storage scheme, underground storage facilities, bank deposit strong rooms, crypts and tombs, underground workings for basalt, fluorite, and salt; underground factories; prison cells, airraid shelters; control centres; a police museum; and nuclear facilities. The sites, in both east and west Germany, are all identified and more or less precisely located. Peter Seidel [photographer], Manfred Sack and Klaus Kemp, *Unterweltem: Orte im Verborgenen / Site of Concealment*, Wasmuth: 144 pp., 1993. ISBN 3 8030 2807 8 £ 46

Enigmatic gate on south portal of original Blackwall Tunnel

A Greenwich local history convenor requested an opinion on an enigmatic structure above the south portal of the tunnel which an informant believed was threatened by a proposed oversized lorry escape slip road, and which he believed was a WWII gas gate to prevent the tunnel filling with poisonous gas.

I went and inspected the site and found a white fluted concrete box about 30 ft. wide by 20 feet high positioned about 15 feet back from the portal on the line of the tunnel, with a single steel door. Corresponding to this position in the tunnel was a ring of replaced cast iron segments. Evidently a port-cullis like gate had dropped down a slot sealing the tunnel. I examined the northern portal but no such arrangement was in place. This is strongly indicative that what was being kept out was Thames water at high tide, because the south bank of the river is much lower than the north bank, and much of it is below flood level. A gas protection would require both ends to be sealed. Peering with difficulty through the key hole of the door I found I could make out an expanded metal catwalk over a void of the slot, but I think the actual gate had been removed.

My opinion is that this is not a wartime construction, the concrete was of high quality with decorative panels in a style I am pretty sure I have seen on other LCC flood protection schemes. My guess is '30's

Roger Morgan

Broadcasting House WWII bunker.

I recently had to give an interview on Sub. Brit. to 'Going Places' (2nd February 1996) at short notice. I took the opportunity once in Broadcasting House new annex to prospect for their wartime bunker which I had heard formed its basement. Sure enough on the lower ground floor I rapidly encountered the unmistakable texture of WWII concrete and large steel blast doors protecting a central corridor with rooms off on either side. Cast into the concrete blast wall of the approach ramp in pristine lettering was 'BBC AD 1942'. Locating the position on the surface showed that the bunker occupied the central well of the block running along Duchess Street and could be seen down a gap at the corner of Hallam Street used by engineering vans. Indeed the present use of the bunker seems to be by Radio Engineering Services.

Roger Morgan

Visit to the Ukraine

During five days over Easter a small group from Britain, the Czech Republic, and the Netherlands visited sites in the Ukraine. We were the guests of Speleoklub Krystal, from Chortkiv in the Ternopil area in western Ukraine (between Lvov and Kiev.) On arrival on the night sleeper train from Prague, we were met by our Ukrainian hosts at the border station at Chop, just inside the former Soviet Union. Our route at first took us along the Soviet side of the former 'iron curtain', often within metres of the

overgrown and collapsing barbed-wire fences. This allowed us to see quite a lot of Romania 'at a distance.' An underground ward of the State Allergological Hospital, located within a working salt mine, was visited. We then turned northwards for a memorable drive through the Carpathians in a snowstorm, to our base for two days at Chortkiv.

During our second day, we visited the spectacular fortifications at Skala Podolska and Kamjanetspodilski (a fortified city, and a separate fort, in an exceptionally dramatic setting). We passed disused Warsaw Pact missile silos, and visited an extensive underground buildingstone quarry which had been active from the later 1940s through to the 1970s, and which yielded materials for rebuilding after the Second World War. Pressure of time prevented our visiting a nearby quartz mine.

The third day was spent visiting a small cave monastery (in an elaborated natural cave in a commanding position overlooking a river valley), and two extremely unusual natural solution cave systems in gypsum beds. One of these cave systems had had some human use from Neolithic to modern times for habitation or shelter. The other had, in one small area, been worked as a very small gypsum mine.

We then took a very comfortable, solidly built, broadgauge Russian-style sleeper train overnight to Kiev, where we saw the famous 'near' and 'far' monastery caves of Lavra, excavated in loess. Similar 'caves' nearby (not open to the public), and an entirely new such cave still in course of construction, completed a spectrum of underground activity which has (to date) extended over some 10 or 11 centuries. Some of these 'caves' are currently being examined by archaeologists from the national museum of history. The museum archaeologists were our guides in Kiev, and we were also shown the 'caves' gallery at the museum. A dismantled red granite statue of Lenin, stored behind the museum, and a toppled bust of the head of the KGB, reminded us that the communist era in the Ukraine is now a part of history! The splendours of the Kiev metro stations (far more impressive than Gants Hill, and even better than Prague) have to be seen to be believed: so does the rush-hour!

From Kiev back to Prague via Chop took 30 very comfortable hours in the sleeper train (the wheels are changed to standard gauge at Chop), with splendid views of the Ukrainian countryside including the very prettily snow-covered Carpathians.

Speleoklub Krystal (named after the gypsum and pyroclucite crystals in the Mlinki gypsum caves) propose to organise an international conference in the Ukraine some time in the next two to three years. A projected cost of 250 US dollars for five days, starting from Kiev, would include all accommodation and meals, and train and sleeping compartment tickets for travel Kiev - Ternopil, and Ternopil - Chop. Persons attending could either fly to and from Kiev international airport (and would need to return from Chop to Kiev by train - but Ukrainian rail fares are cheap.) Alternatively, members may prefer to travel via Prague and Bratislava through Chop to Kiev and back. Our Czech colleagues will assist during the visit with translating from and to Ukrainian (very similar to

Russian), and English.

This would be a very different sort of international conference - incorporating overnight accommodation on sleeper trains - but an extremely interesting one both in terms of man-made and man-used underground structures, and of socio-economic conditions 'behind the iron curtain (as was.)' Anyone interested in further details of the excursion briefly reported here is invited to send a stamped self-addressed envelope to one of the participants:

Paul W. Sowan, Subterranea Britannica, 96a Brighton Road, SOUTH CROYDON, Surrey CR2 6AD, England
David Havlíček, Jihozápadní III/27, 14000 PRAGUE 4, Czech Republic
Ton Breuls, Studiegroep Onderaardse Kalsteengroeven, Bovenstraat 28, 3770 KANNE / RIEMST, Belgium

Paul W. Sowan

Joseph Williamson's Liverpool Tunnels

The following is a sad letter received by Sub. Brit. Roger Morgan accordingly registered our dismay at the proposed, at least partial destruction, of these unique tunnels by writing to Head of Planning, City of Liverpool.

Meanwhile The Times, 23rd April, published not only a description of the caverns but also devoted a leading article on the issue of their historic importance. It said, '... Their nominal guardian in Whitehall the Department of National Heritage, has acknowledged the value and local interest ... but refuses to list the labyrinth because in bureaucratic terminology, tunnels are not structures although, curiously, their entrances are.' !!

... The Liverpool City Council has received a planning application to build 21 Student houses on a piece of grassed land adjoining the old Lord Mayor's Stables in Smithdown Lane, Edge Hill, Liverpool. The land is bounded by Mason St. Grinfield St. and Smithdown Lane. These plans will destroy many tunnels, cellars and other underground structures built for the eccentric Georgian philanthropist Joseph Williamson, as part of his own 'job creation scheme,' from about 1806 to 1840. No account has been taken of the site's historical heritage and its subterranean features.

Joseph Williamson was born in Warrington in 1769. He was born into a poor family and came to Liverpool in 1780 to make his fortune. After serving a apprenticeship in a tobacco factory, he worked hard, married the boss's daughter and then made a fortune. He had started to build and tunnel from about 1806, but after he retired in 1818 his construction and job creation schemes began in earnest.

These subterranean works of Williamson, who was also called, 'the Mole of Edge Hill, are not only unique to Liverpool, but to the United Kingdom. For too long they have been forgotten. Most people do not realise the extent or size of these subterranean follies. For well over 22 years, Williamson spent his fortune on paying the local unemployed to dig tunnels, crypts, caverns and catacombs. A huge honeycomb of subterranean constructions now stretch in all directions under Edge Hill, Liverpool. No complete

map of them exists, but we are now trying to map them.

Subterranean galleries; vaulted passages; tunnels cut out of the living rock; yawning chasms and caverns; groined arches and vaults of weighty and solid construction; tiers upon tiers of arches, upon arches; a labyrinth of the most intricate design; dungeons and crypts carved out of the solid rock; vaults with a roof of four arches meeting in the centre; monstrous wine-bins with many partitions for enormous quantities of bottles; five and six tiers of cellars under many of the houses; a coal vault that could contain at least 200 tons of coal; and two complete four-roomed houses, one over the other, cut out of the solid rock and reminding one of Petra or Edin! All these subterranean features were interlinked by winding and spiral passageways. The tunnels and other underground works are perfectly constructed and well crafted in brick and sandstone, with many fine brick arches of various designs. We have been in one that called the Goblin Hall or Banqueting Hall, that is about 80ft. long, 40ft. high and width going from 15ft. to 30ft.

A Secret Underworld, much of it yet to be re-discovered, winds beneath, one's very feet, as you walk around this area of Edge Hill, Liverpool.

Above the ground he built many strangely designed houses, gardens, follies and boundary walls. The exteriors of the houses were remarkable for the huge size of windows or for the lack of them! The rooms were strangely partitioned with large and small rooms and passages oddly running about, some ran over the tops of other houses to rooms, which houses below had no entrance too. All his houses were connected by tunnels.

Williamson loved to build arches and this was put to good use in his gardens and orchards which he had constructed upon tier and tier of arches, all of which were connected into his other underground works. Most of the structures above ground have been destroyed or incorporated into later buildings. Part of his original house still exists and could be restored back to it's former Georgian glory.

A lot of the structures below ground are still intact and quite a few are in very good condition. Over the years many have been blocked with rubbish or bricked up. Most could be opened up, rubbish cleaned out, restored and we would have a unique monument to British eccentricity.

The piece of grassed land that the developers wants to built on is undermined by many caverns, cellars, tunnels and other Subterranean Features built for Joseph Williamson.

Building on this land would result in the destruction of many of these unique subterranean structures. Many have been hidden from view for over 150 years. James Stonehouse the local Historian, stated in 1845, that a labyrinth of intricate design lay below, the centre of the site, but the entrances, had been entirely filled with rubbish.

Some Tunnels, Cellars and Caverns are only two feet below the surface. The land has not been fully surveyed to map out all the structures that still exist! This is not just a local matter, it concerns the future of a part of England's Heritage.

The Williamson structures under this area of land are very important, because we have ground level access to

some of them from the adjacent Smithdown Lane Stables. They would be the ones most accessible to the general public if the tunnels were opened as a tourist attraction, in the future.

At the side of the piece of grassed land threatened with development is the old Corporation Stables. These were originally built as the Central Stables for Liverpool Corporation. Building started in 1867 and comprise a range of fine quality Victorian single & two storey brick buildings surrounding a cobbled yard. The buildings include Coachman's House, HorseKeepers House, Office Building, Provender Store and Hay loft, Coach House and Stable blocks.

The Liverpool Lord Mayor's State Coach and Horses were housed at the Stables until 1990. Also the Stables at one time held up to sixty heavy horses. They were the first and largest Liverpool Corporation Stables and the last to house working horses.

At the rear of the Stables is the ground level entrances to the Joseph Williamson Tunnels and Edge Hill Catacombs. All the tunnels run into a steep sloping hillside of Triassic Sherwood Group of Red Sandstone. This slope could be part of the Scarp Slope of the Smithdown Lane geological fault line.

The building of the Student Houses on the grassed land is the first phase of the building plan of Seymour Properties (Winsford) Ltd.. The second phase is the destruction of the Old Corporation Stables, (sometimes called the Lord Mayor's Stables), Smithdown Lane and the building of more Student accommodation.

Stephen Moran, Gabriel Muies and I, over the last few years have been trying to stop the Liverpool City Council from selling of this important part of our Heritage. By many letter, maps and other relevant documents the City Council have been well informed about the unique history of the area. But they seem to be hell-bent on planning the destruction of our Heritage to let Student accommodation be built.

Plans and ideas, including a feasibility study have been submitted to the Liverpool City Council. If these plans were allowed to proceed, the Joseph Williamson's works and the Stables would be protected from destructive development. The Old Lord's Mayors Stables, Smithdown Lane, would be turned into a unique Heritage and Crafts Centre, including a Railway Museum and ground level access to some of Williamson's Tunnels, caverns and other underground constructions.

We have contacted the Dept. of National Heritage to see if they would consider listing the Joseph Williamson Constructions and the Old Lord Mayor's Stables. We are hoping that they do realise that these are not just of local interest but are a part of our National Heritage. The Dept. has informed the Development & Environmental Service that they are making arrangements to inspect the tunnels. We are hoping that they ask us to show them around, because it seems that no one in the Development and Environmental Service has ever been in the tunnels.

We are now worried about the future of the Tunnels and Stables because the Liverpool Development & Environmental Service have tried to rush through this planning

application on the 2nd April.

We have written letters of objection to the City's Planning Services to try and get this destructive development stopped. I enclose herein a copy of my letter and copies of background information, so you can get a fuller picture of the situation. Another worrying point, is that the planning officer's report submitted to the Sub-Committee was incorrect. It stated that only one letter of objection was received. No mention was made of 16 others, which included letters from; Save Our City Campaign; His. Society of Lancs. and Ches.; The Wavertree Society, Florence Melly Area Community Team; West Derby Publishing and members of the general Public. The report also stated that the major portions of the tunnels and subterranean features are located on the Stable Site and that they would not be significantly affected. Anyone who has visited the site can see that this information is wrong.

Sarah-Jane Farr the SMR Officer for Merseyside, based at the Liverpool Museum, William Brown St., had not been informed by the Planning Dept. or the developer of the proposed plans for the site. After we had informed her of this building application, she had requested a sight of the plans, so she could comment on the archaeological implications of any development. No plans were sent to her, but she contacted the Planning Dept. and faxed her comments.

With the help and support of many people including Sarah Jane Farr and Florence Gersten(Save Our City), we have managed to get the Development Control Sub-Committee to postpone any decision until they have visited the site.

If the planning application had been passed, the developer was ready to start work and the tunnels and other features would have been destroyed, before they could be considered for listing.

We are trying to get the Williamson Constructions and the Stables protected, so that this part of Edge Hill, can be

We were wondering if you might be able to help us with any ideas or suggestions, on how we can proceed and protect this important part of Our Heritage. If you could possible help in any way, we would be eternally grateful.

We have just been told that underground structures can only be Scheduled and not listed. Would you know if this is correct and how would we go about getting the tunnels Scheduled?

Also Sarah-Jane Farr has been trying to contact a specialist in below ground structures for their advice. Do you possible known someone who could be contacted?

This could be the last chance for these unique Georgian Underground features and Victorian Stables to be saved. These works are unique, and they need to be protected from destruction.

If you can help, I can be contacted at the above phone number and address. We have lots more information we can supply you with. If you want to arrange a visit to the site by any of your local representatives, we will give them a guided tour around the Stables and the Tunnel systems that are of easy access. Thank you for taking the time to read this letter. If you know anyone who might be interested, please feel free to pass the information to them,

with my phone number and address. I would be pleased to supply them with any information required.

We are trying to contact anyone who might be able to help in anyway.

David J. Head. 14 Torcross Way, Liverpool, L26 7YU
0151 487 5547

Sub. Brit.'s database on the web.

Thanks to Richard Lamont Sub. Brit. is on the web. **But note it has a new address, <http://www.users.dircon.co.uk/~stonix/sub/>**

Bruce Osborne has established a database of Sub. Brit. Bulletins at the Sussex University. You can now search for information about Bulletin articles using key words of your choice on the web. This database is not yet complete since it is also meant to include newsletters but not all have, as yet, been added. When this particular database is complete we will work on establishing (in conjunction with the University) a searchable database of underground sites in the UK. This is a large task and some sort of administrative framework will be needed.

Entries for each site will be based on a five field system but the information to be entered is not settled. The present suggestions are given by the examples below. Comments are welcomed, but please be quick.

1. **Site address and location.** Barons' Cave, Castle Mound, Reigate, Surrey.
2. **Site type.** Scheduled monument. Probable medieval sally-port leading down from site of Norman Castle (now gone) but with side passages, one ancient and unique in UK and of unknown purpose. Other passage was for sand mining
3. **Condition of site.** Well maintained. Easy walking for able bodied tourists (MHT 1996)
4. **Public Access?** It is ran as a show cave.
5. **References.** (i) The Barons' Cave, Reigate. A Guide. Peter Burgess, Wealden Cave and Mine Society, 1994.
(ii) Records of the Chelsea Speleological Society.

1. **Site address and location.** Tunnel road Reigate.
2. **Site type.** Road tunnel (now pedestrianised) on line of former a London to Brighton route. Bricked lined and oldest road tunnel (1823) remaining in UK
3. **Condition of site.** Excellent (MHT 1996)
4. **Public Access?** Yes.
5. **References.**

1. **Site location.** Sand galleries on east side of Tunnel Road, Reigate.
2. **Site type.** Part of extensive system of sand mines associated with centre of Reigate. Strengthened with

brick arches and adapted as WWII air raid shelters and a civil defence post.

3. **Condition of site.** Well maintained. Easy walking in parts for the able bodied but hazardous in other parts. (MHT 1996)

4. **Public Access?** No

5. **References.** Records of the Chelsea Speleological Society.

1. **Site location.** Town Hall, Reigate.
2. **Site type.** Cold war bunker. Was County Standby HQ in event of nuclear attack.
3. **Condition of site.** Part of Town Hall offices. (MHT 1996)
4. **Public Access?** No
5. **References.** War Plan UK. Duncan Campbell

What is the purpose of the proposed database?

It will fulfil the aims of Sub. Brit. It will identify sites in need of protection and preservation. It will be of use to academic reseachers. It will be of use to town planners. It will be of use to the media.

Wouldn't it be better to write a book?

It would take a very long time to write the database as a book. When published (if ever) it would be incomplete and contain errors. It would be expensive and available to very few people. It would not be seachable in the way the computerised version is. However book versions of the database could be also be produced with ease from the computerised form.

A database on Internet is available world-wide as soon as the first entry is made. It is correctable and modifiable at all times and many people can participate in its construction.

Won't it draw unwelcome attention to sites?

Only sites in public use or which have been the subject of publications will be included.

Newsletters of Subterranea Britannica are published by the committee of Subterranea Britannica. Original articles, book reviews, press cuttings, extracts from books and journals, letters to the editor etc. are welcomed. However the editor reserves the right not to publish material without giving a reason.

Subterranea Britannica and the editor do not necessarily agree with any views expressed and cannot check the accuracy of material sent in.